

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1062193

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062193
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

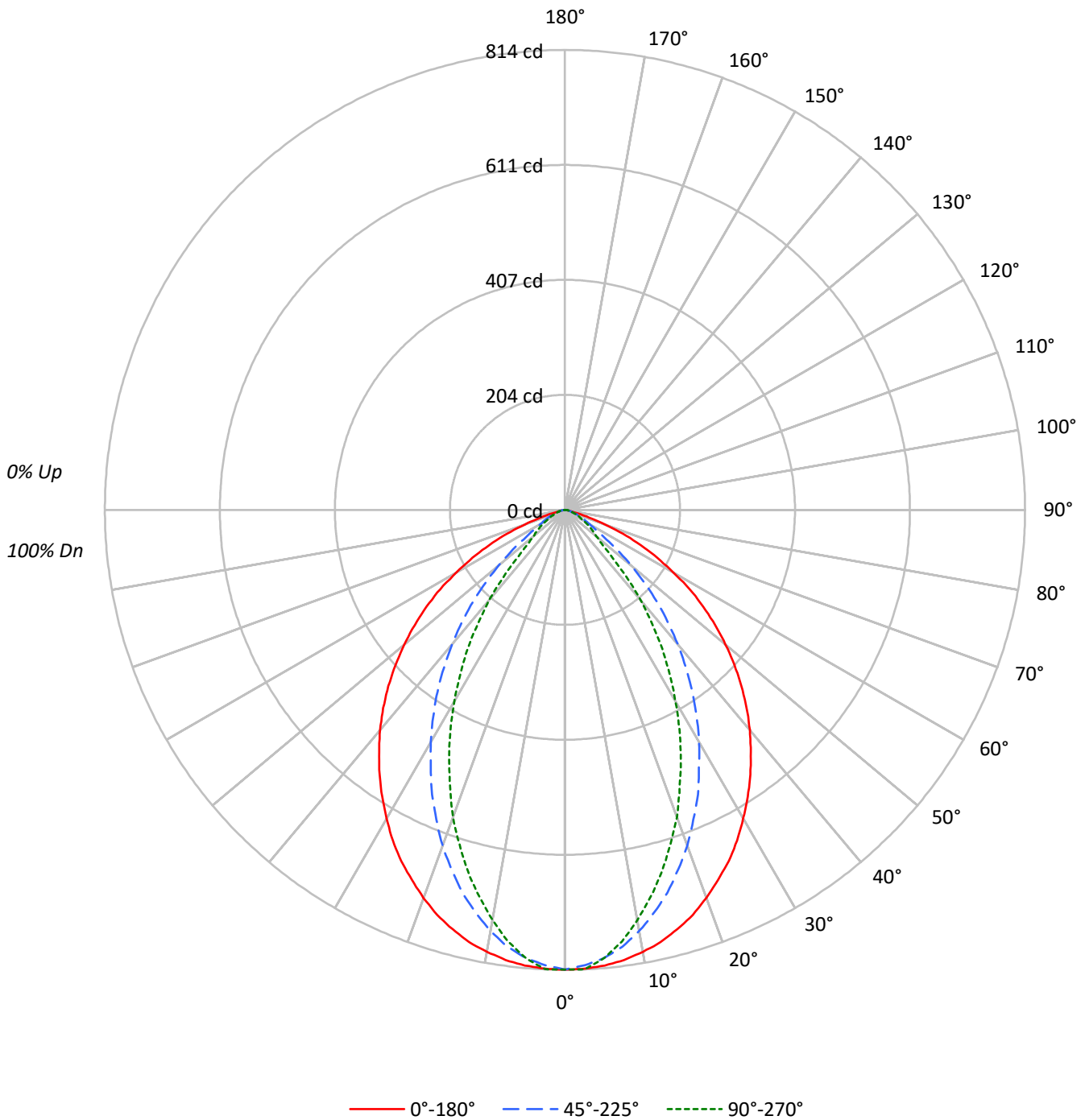
Lumens per Lamp: N/A
Luminaire Lumens: 1176.9 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-SVL-B

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5603	5603	5603
5°	5596	5503	5503
10°	5553	5293	5155
15°	5477	4998	4725
20°	5357	4637	4243
25°	5209	4226	3685
30°	5015	3773	3108
35°	4806	3303	2521
40°	4573	2788	1869
45°	4300	2236	1128
50°	3976	1639	776
55°	3588	1006	646
60°	3047	683	512
65°	2410	523	404
70°	1520	374	332
75°	495	274	274
80°	163	206	246
85°	79	166	166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4300 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	6.4
10°-20°	198.8	16.9
20°-30°	261.5	22.2
30°-40°	256.9	21.8
40°-50°	194.4	16.5
50°-60°	117.8	10.0
60°-70°	55.6	4.7
70°-80°	14.5	1.2
80°-90°	2.2	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	535.5	45.5
0°-40°	792.4	67.3
0°-60°	1104.6	93.9
0°-90°	1176.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1176.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	810	808	796	797	796	77
15°	768	748	701	674	663	216
25°	686	634	556	505	485	315
35°	572	495	393	324	300	357
45°	442	348	230	146	116	340
55°	299	205	84	57	54	266
65°	148	76	32	27	25	146
75°	19	12	10	10	10	29
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	813.8	813.8	813.8	813.8	813.8
2.5°	812.8	812.8	806.6	813.8	813.8
5°	809.7	807.6	796.2	797.3	796.2
7.5°	803.5	799.3	779.7	774.5	770.4
10°	794.2	785.9	757.0	744.5	737.3
12.5°	783.8	769.4	730.1	712.5	701.1
15°	768.3	747.6	701.1	674.2	662.8
17.5°	751.8	721.8	667.0	634.9	620.5
20°	731.1	695.9	632.9	593.6	579.1
22.5°	708.3	667.0	593.6	550.1	530.5
25°	685.6	633.9	556.3	504.6	485.0
27.5°	659.7	600.8	513.9	460.2	438.5
30°	630.8	567.7	474.6	418.8	390.9
32.5°	601.8	533.6	433.3	372.3	344.4
35°	571.8	495.3	393.0	323.7	299.9
37.5°	539.8	459.1	351.6	279.2	251.3
40°	508.8	422.9	310.2	233.7	207.9
42.5°	475.7	386.7	268.9	189.2	160.3
45°	441.6	347.5	229.6	145.8	115.8
47.5°	406.4	312.3	190.3	107.5	86.9
50°	371.2	275.1	153.0	79.6	72.4
52.5°	335.0	238.9	115.8	66.2	63.1
55°	298.9	204.7	83.8	56.9	53.8
57.5°	261.6	167.5	63.1	48.6	45.5
60°	221.3	134.4	49.6	40.3	37.2
62.5°	184.1	105.5	40.3	33.1	31.0
65°	147.9	75.5	32.1	26.9	24.8
67.5°	110.6	50.7	24.8	20.7	20.7
70°	75.5	33.1	18.6	16.5	16.5
72.5°	45.5	19.6	13.4	13.4	13.4
75°	18.6	12.4	10.3	10.3	10.3
77.5°	6.2	7.2	7.2	8.3	8.3
80°	4.1	4.1	5.2	6.2	6.2
82.5°	2.1	3.1	3.1	4.1	4.1
85°	1.0	1.0	2.1	2.1	2.1
87.5°	0.0	0.0	0.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.32	16.65	15.68	16.96	17.28	5.97	7.30	6.34	7.62	7.93
	3H	16.02	17.20	16.40	17.53	17.89	6.75	7.93	7.13	8.26	8.62
	4H	16.04	17.13	16.44	17.49	17.87	7.00	8.10	7.40	8.45	8.83
	6H	15.97	16.97	16.38	17.34	17.74	7.18	8.18	7.59	8.55	8.95
	8H	15.93	16.88	16.36	17.27	17.68	7.22	8.17	7.65	8.57	8.97
	12H	15.89	16.80	16.32	17.18	17.61	7.23	8.14	7.66	8.52	8.95
4H	2H	15.15	16.24	15.55	16.59	16.98	6.46	7.56	6.86	7.91	8.29
	3H	15.89	16.79	16.31	17.19	17.59	7.37	8.26	7.78	8.66	9.06
	4H	15.91	16.71	16.35	17.13	17.57	7.68	8.47	8.11	8.89	9.33
	6H	15.85	16.53	16.31	16.98	17.45	7.94	8.62	8.40	9.07	9.53
	8H	15.80	16.44	16.27	16.88	17.35	8.00	8.64	8.47	9.09	9.56
	12H	15.75	16.32	16.24	16.80	17.27	8.03	8.59	8.51	9.07	9.55
8H	4H	15.79	16.43	16.26	16.88	17.35	7.79	8.43	8.26	8.87	9.34
	6H	15.72	16.24	16.22	16.73	17.22	8.11	8.63	8.61	9.12	9.61
	8H	15.66	16.13	16.19	16.65	17.14	8.21	8.68	8.73	9.19	9.69
	12H	15.62	16.03	16.14	16.53	17.10	8.27	8.69	8.79	9.18	9.75
12H	4H	15.75	16.31	16.24	16.80	17.27	7.76	8.32	8.25	8.81	9.28
	6H	15.66	16.13	16.18	16.64	17.13	8.08	8.55	8.60	9.06	9.55
	8H	15.63	16.04	16.14	16.53	17.10	8.22	8.63	8.73	9.12	9.69